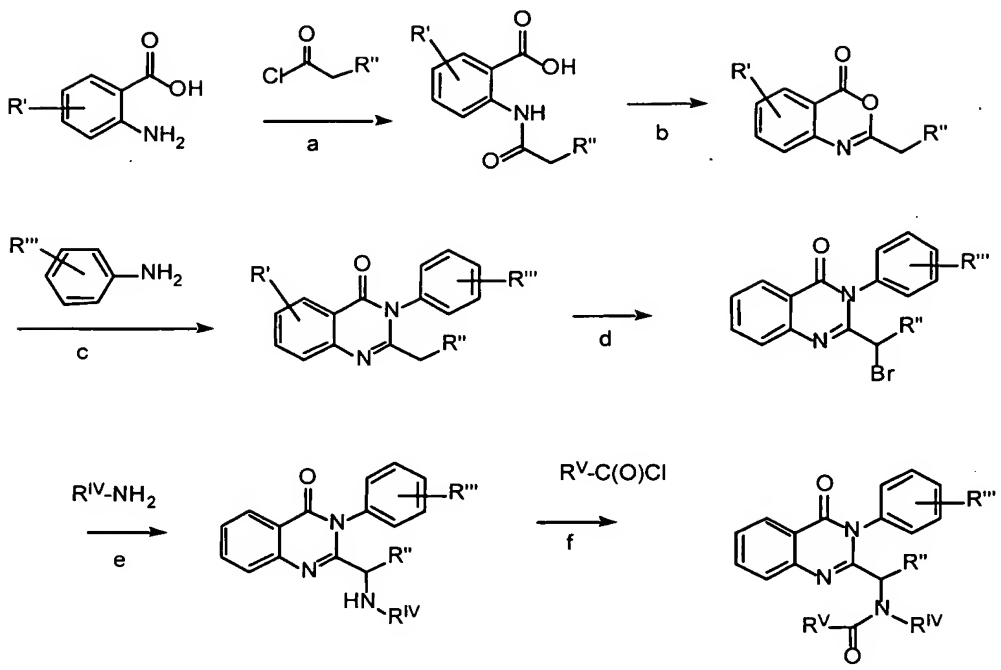
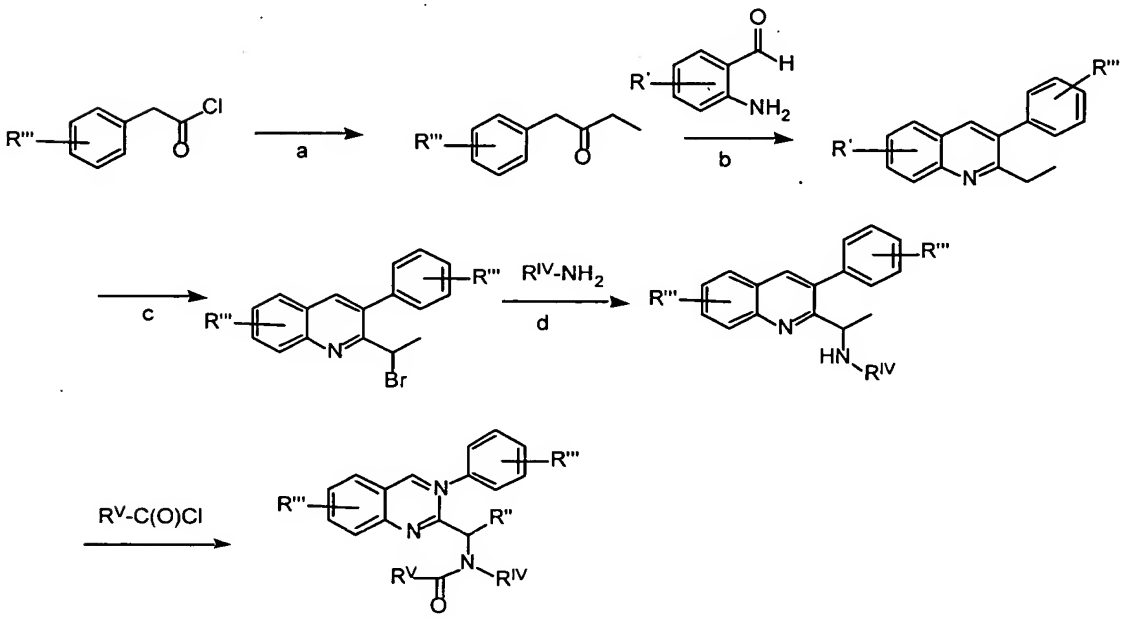
FIG. 1



(a) DMF, RT (b) AcO_2, 118-130°C (c) i. $CHCl_3$, 80°C; ii. cat. NaOH, ethylene glycol, 130°C
(d) Br_2, NaOAc, HOAc, 40°C (e) EtOH, 80°C (f) NEt_3, cat. DMAP, 1,4-dioxane

FIG. 2



a Et_2Zn, AlCl3, CH2Cl2, -30°C- rt. b R'substituted-o-aminobenzaledehyde, 33% KOH, EtOH. c Br_2, NaOAc, HOAc. d EtOH, 80°C.

FIG. 3

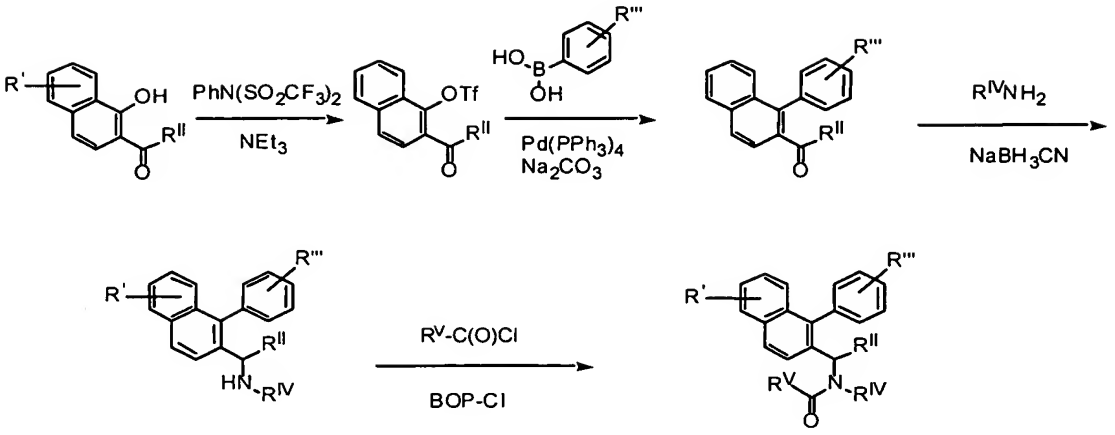
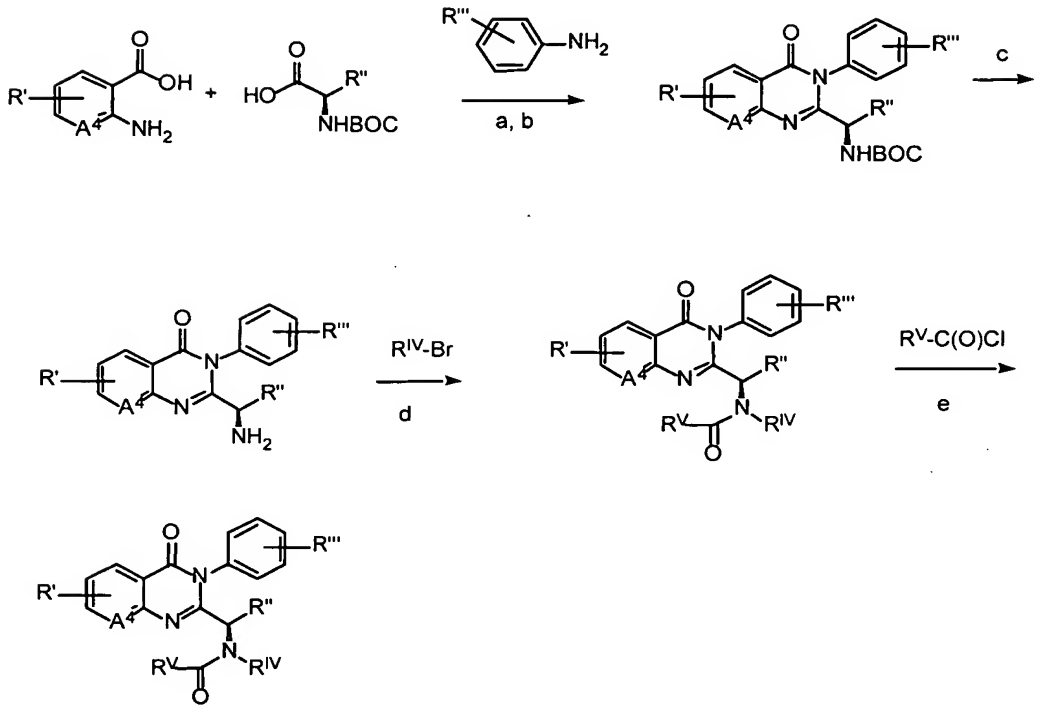


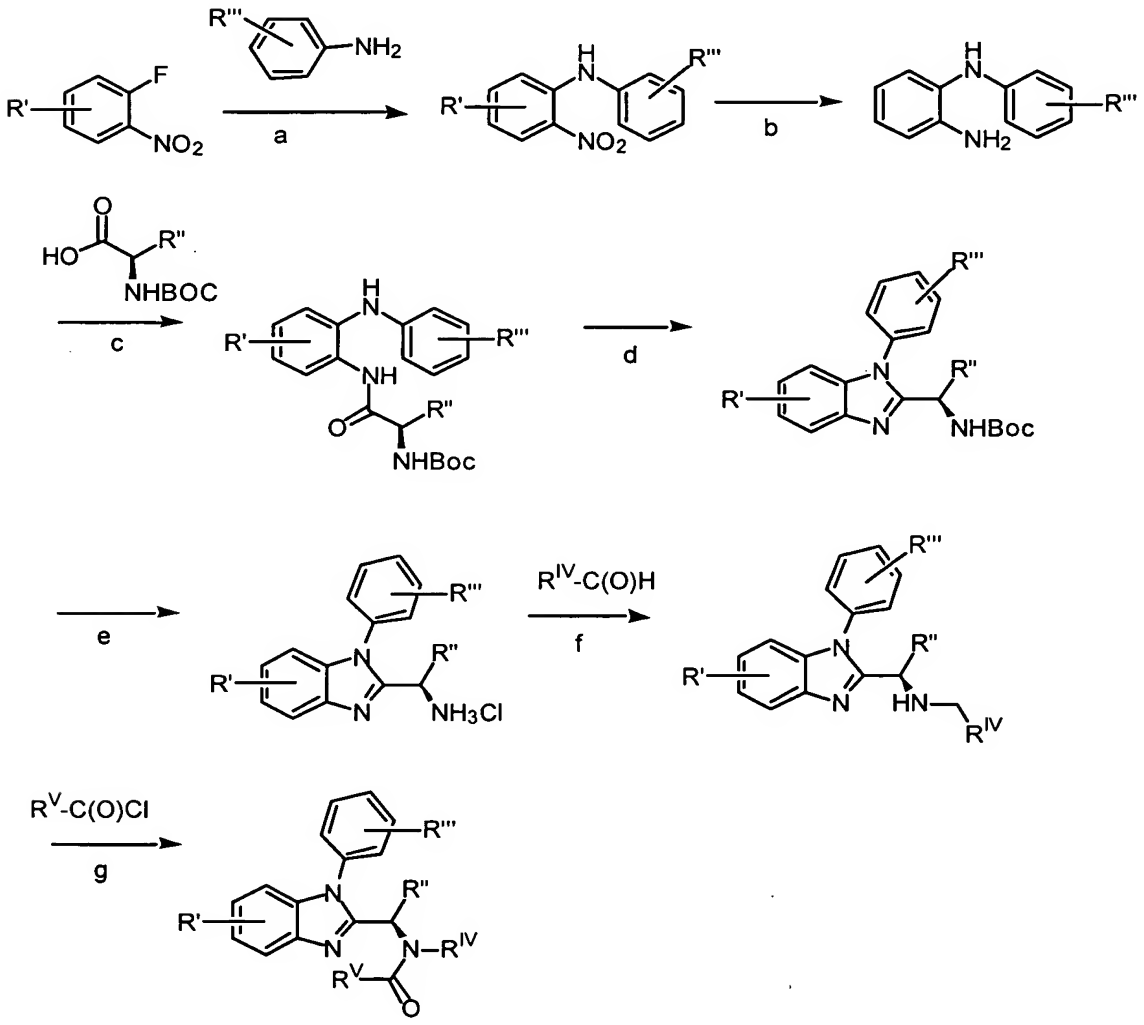
FIG. 4



a. $P(OPh)_3$, pyridine, 55 °C, 14 h; b. R^{III} substituted aniline, 55 °C, 1h;
c. TMSI, MeCN, 25 °C, 1 h; d. KI, K_2CO_3, DMPU; e. EDC, HOBT, CH_2Cl_2.
A^4=C or N

FIG. 5

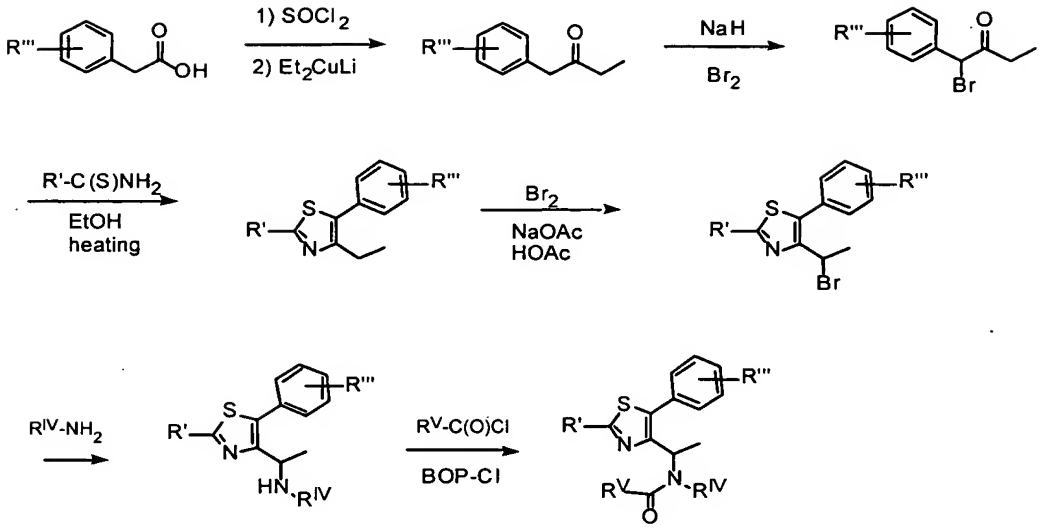
Scheme for the generic synthesis of benzimidazoles



a K_2CO_3, DMF, 125°C,16h. b H2, Pd/C, rt. c D- Boc-Ala-OH, EDC, HOBt, NMM, DMF.
d HOAc, 90°C. e 4M HCl in dioxane, EtOAc, rt. f NaBH3CN, MeOH, rt. g Bop-Cl, Et_3N, THF, rt.

FIG. 6

Part A



Part B

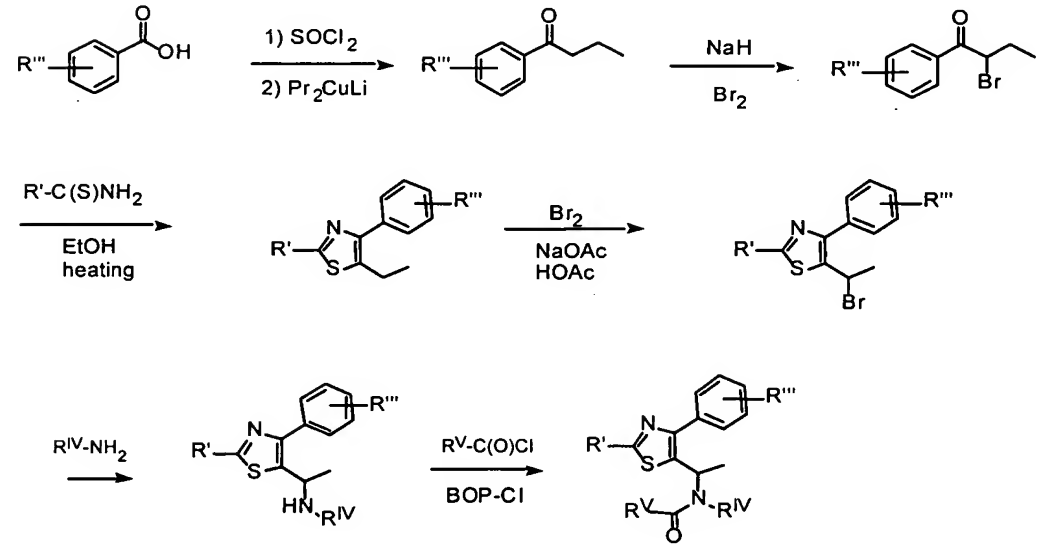


FIG. 7

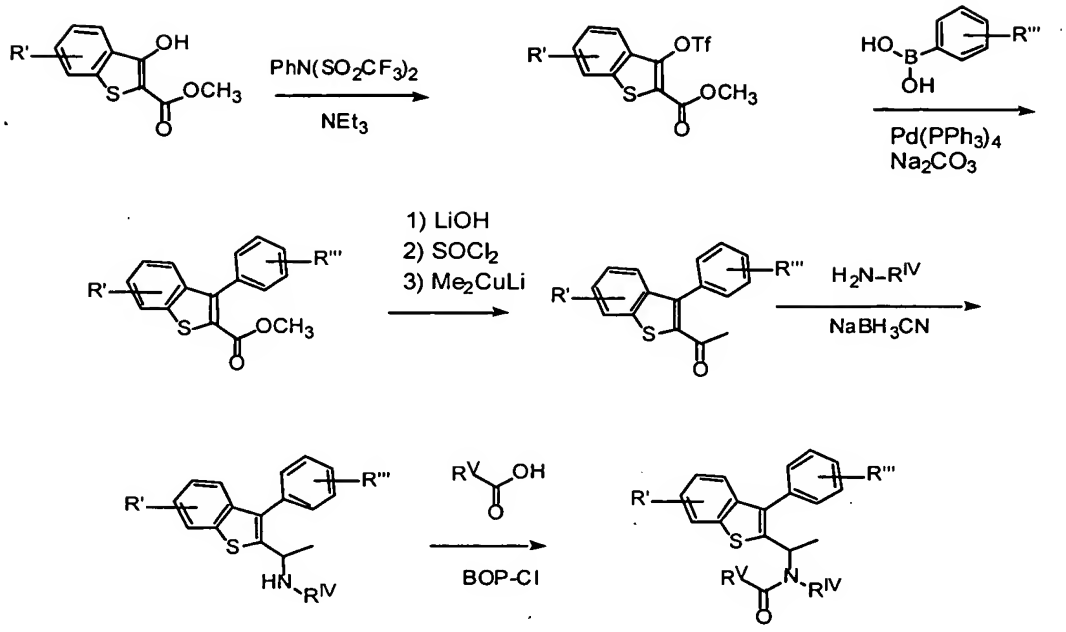

PhN(SO2CF3)2
NEt3
Pd(PPh3)4
Na2CO3
1) LiOH
2) SOCl2
3) Me2CuLi
H2N-RIV
NaBH3CN
BOP-Cl

FIG. 8

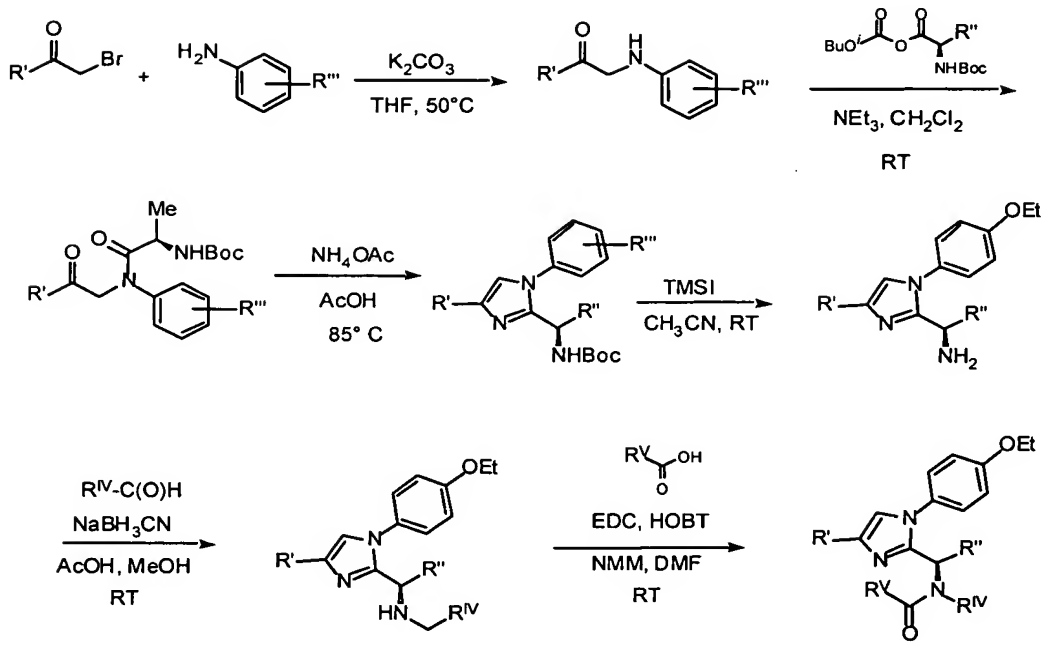

K2CO3
THF, 50°C
NEt3, CH2Cl2
RT
NH4OAc
AcOH
85° C
TMSI
CH3CN, RT
RIV-C(O)H
NaBH3CN
AcOH, MeOH
RT
EDC, HOBT
NMM, DMF
RT

FIG. 9

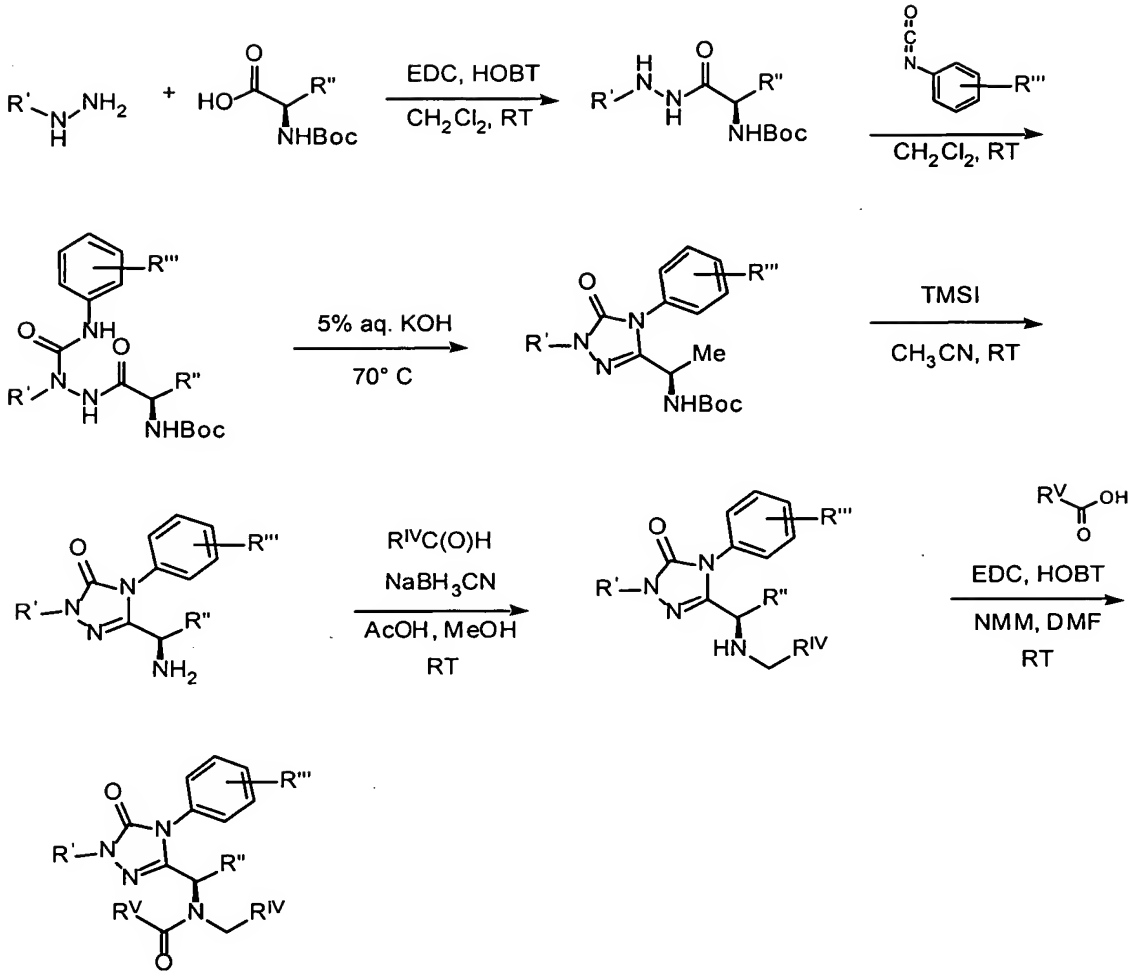
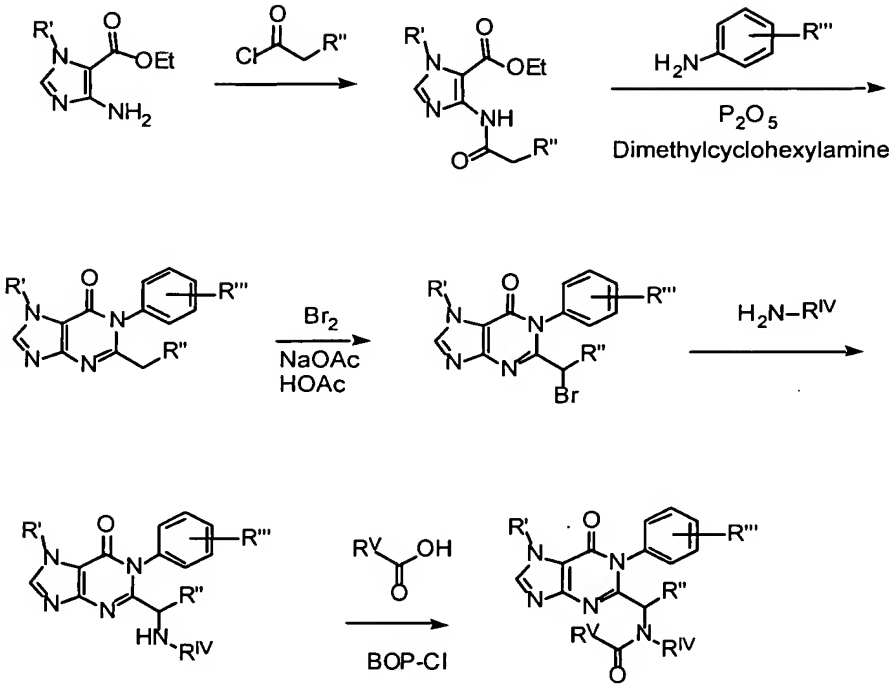

EDC, HOBT
CH2Cl2, RT
CH2Cl2, RT
5% aq. KOH
70° C
TMSI
CH3CN, RT
RIVC(O)H
NaBH3CN
AcOH, MeOH
RT
EDC, HOBT
NMM, DMF
RT
NHBoc
Me

FIG. 10



Ref. Nielsen, F.E.; Pedersen, E.B. Tetrahedron, 1982, 38,

FIG. 11

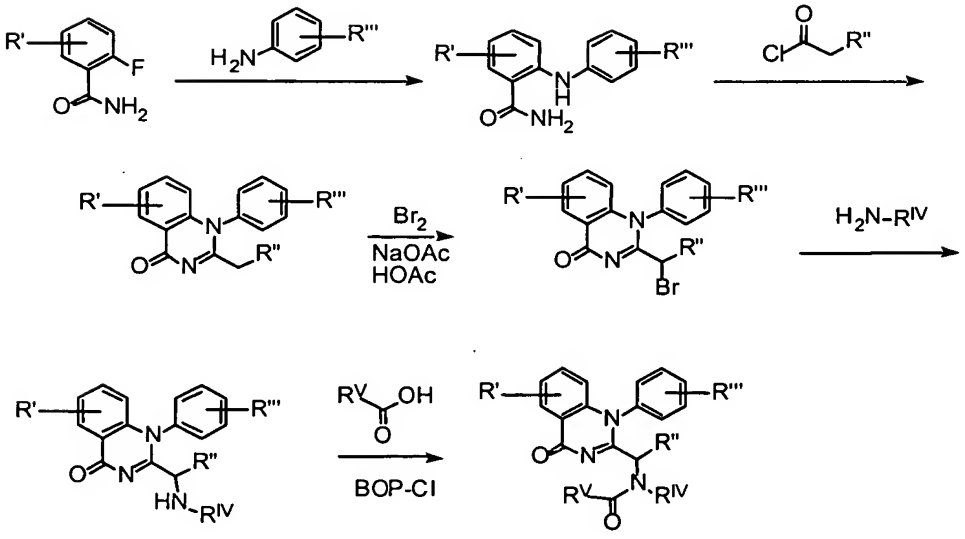
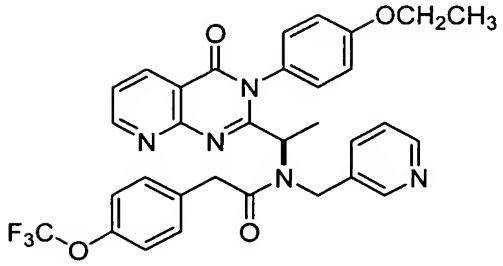
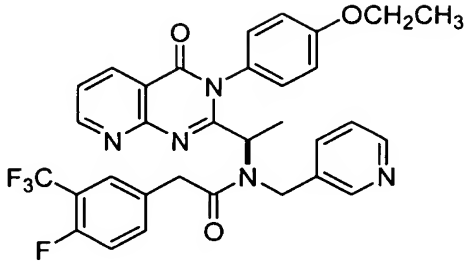


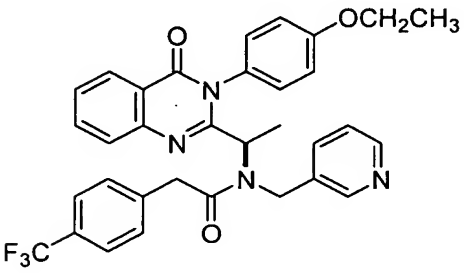
FIG. 12



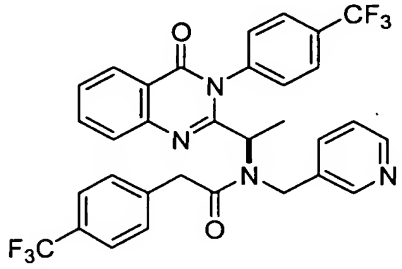
3.16a



3.16b



3.02



3.17a

FIG. 13

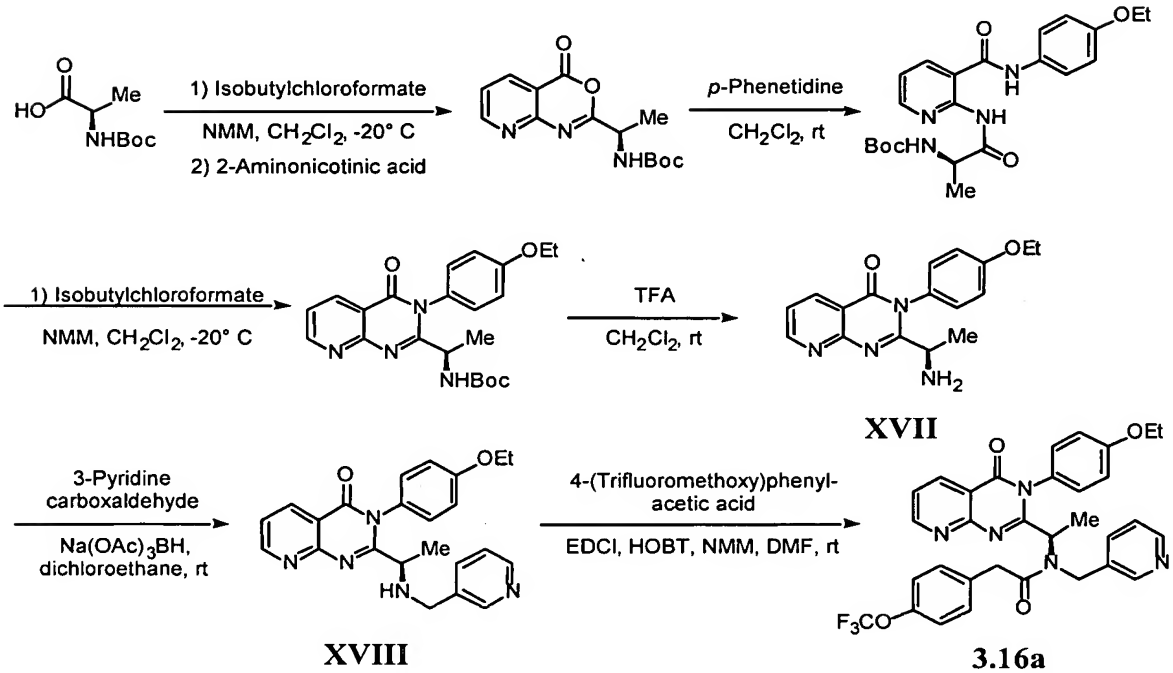
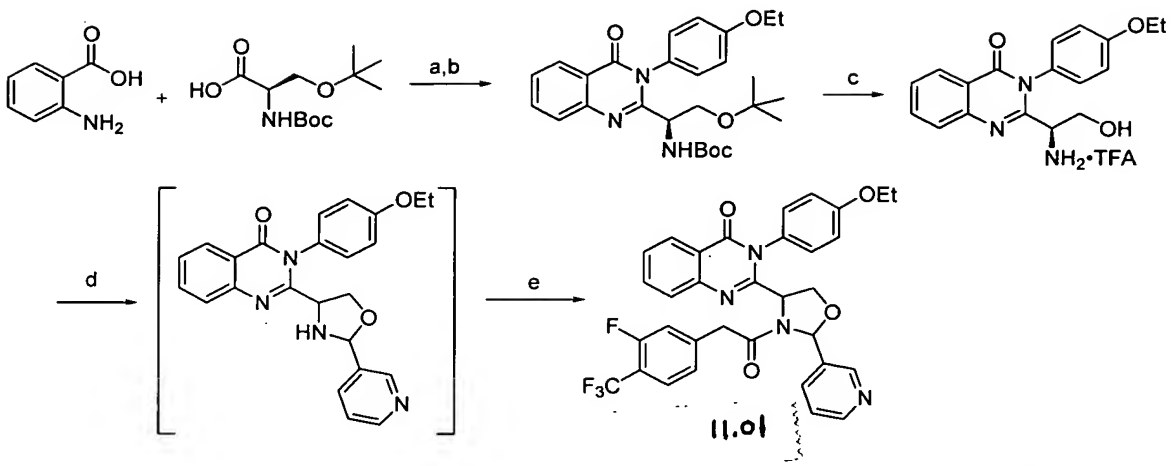
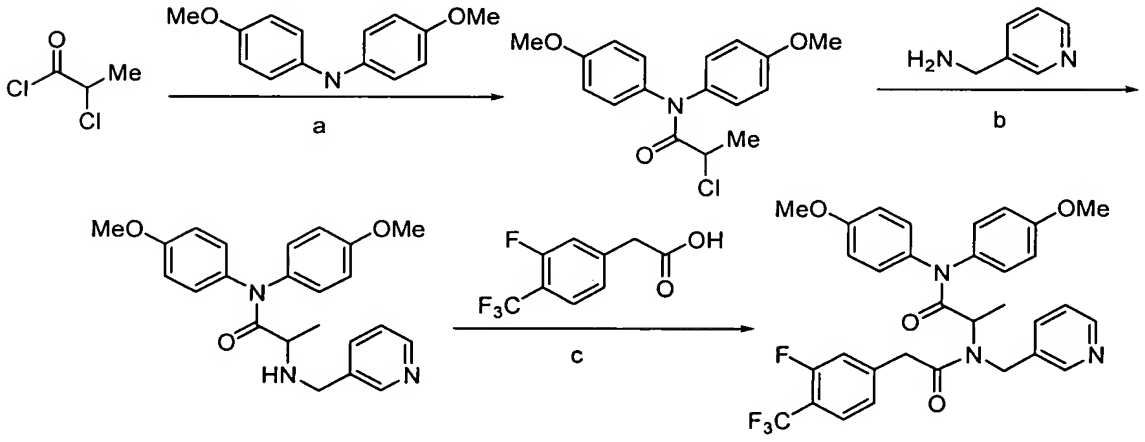


FIG. 14



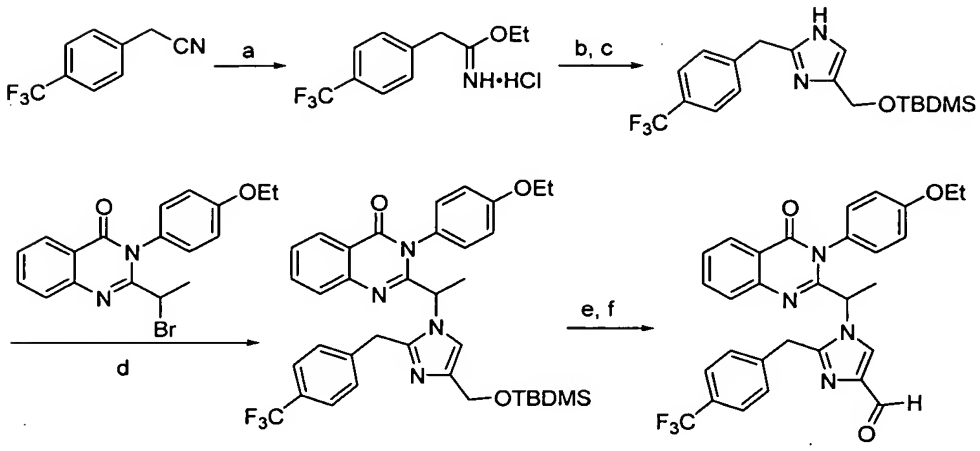
a. $P(OPh)_3$, pyridine, 80°C; b. p-Ethoxyaniline, 50°C; c. TFA, DCM; d. 3-Pyridylcarboxaldehyde, NEt_3, $MgSO_4$, DCM; e. 3-Fluoro-4-trifluoromethylphenylacetic acid, BOP-Cl.

FIG. 15

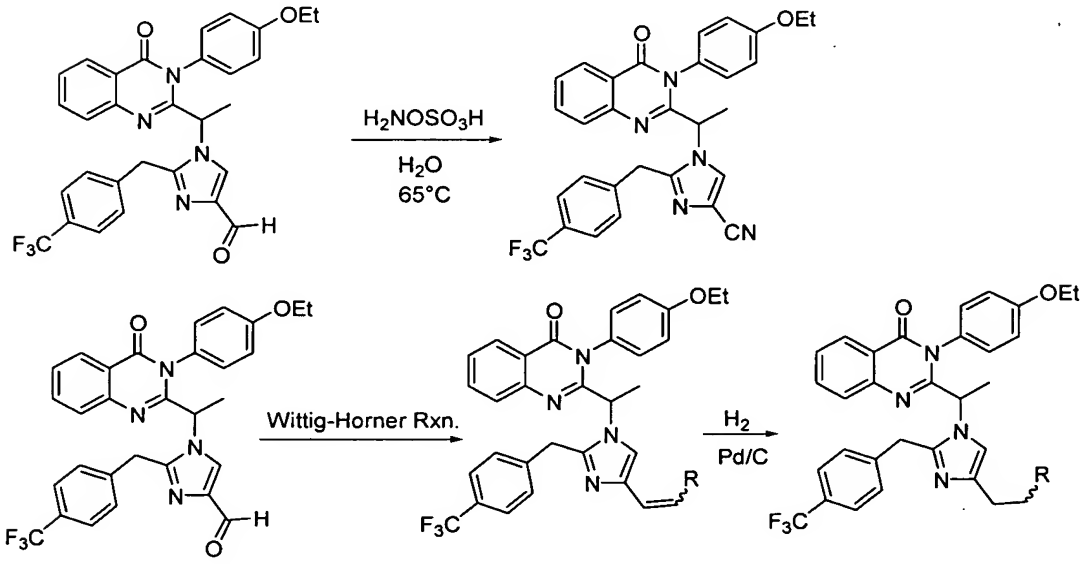


a. NEt_3, DCM; b. EtOH, 90°C; c. BOP-Cl, DMF.

FIG. 16

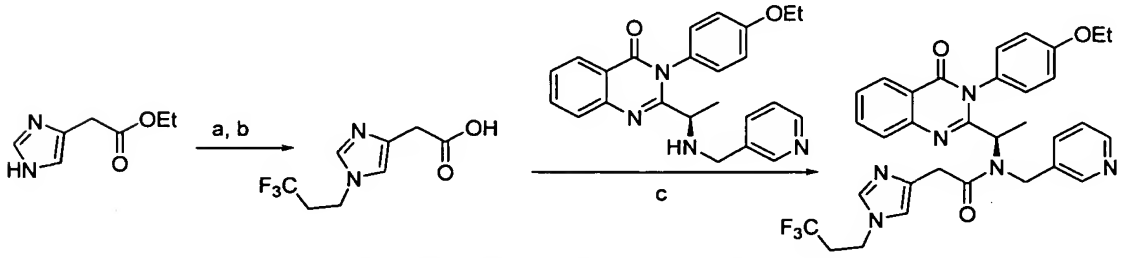


a. HCl (gas), EtOH; b. NH_3, EtOH; c. TBDMSCl, Imidazole, DMF; d. K_2CO_3, DMF, 50°C; e. HCl (conc.), EtOH; f. MnO_2, DCM.



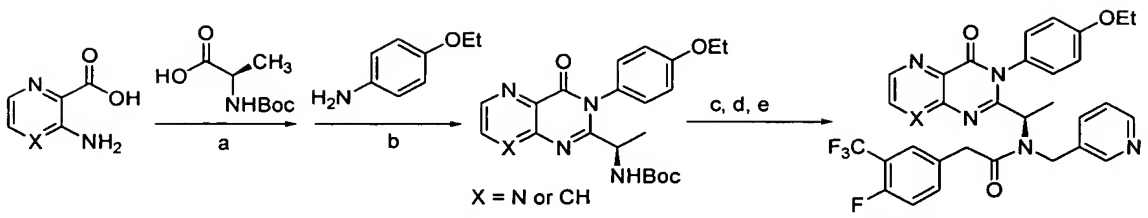
R = OMe, COOEt, CN, 2-pyridyl

FIG. 17



a. $CF_3CH_2CH_2I$, K_2CO_3, DMF, 50°C; b. LiOH, H_2O; c. BOP-Cl, NEt_3.

FIG. 18



a. iBuOCOCl, NEt_3, -20°C; b. iBuOCOCl, NEt_3, 0°C; c. TFA, DCM; d. 3-Pyridylcarboxaldehyde, $NaBH(OAc)_3$; e. 4-Fluoro-3-trifluoromethylphenylacetic acid, BOP-Cl, NEt_3.

FIGURE 19

Table

CXCR3 binding assay IC50≥10μM=X; 10μM>IC50≥1μM=XX; IC50<1μM=XXX

Compound	IC50
1.01	XX
1.02	XXX
1.03	XXX
1.04	XX
1.05	XXX
1.06	X
1.07	XXX
1.08	XXX
1.09	X
1.1	XXX
1.11	X
1.12	XX
1.13	XX
1.14	XX
1.15	XX
1.16	XXX
1.17	XXX
1.18	XXX
1.19	XXX
1.2	XX
1.21	XXX
1.22	XXX
1.23	XXX
1.24	XXX
1.25	XXX
1.26	XXX
1.27	XXX
1.28	XX
1.29	XXX
1.3	XXX
1.31	XX
1.32	XXX
1.33	XX
1.34	XXX
1.35	XX
1.36	XX
1.37	XX
1.38	XX
1.39	XXX
1.4	XX
1.42	XX
1.43	XXX
1.44	X
1.45	X

Compound	IC50
1.47	XX
1.48	XXX
1.49	XXX
1.5	XX
1.51	X
1.53	XXX
1.54	XXX
1.55	X
2.01	XXX
2.02	XXX
2.03	XX
2.04	XX
2.05	XXX
2.06	XXX
2.07	XXX
2.08	XXX
2.09	XXX
2.1	XXX
2.11	XXX
2.12	XXX
3.01	XXX
3.02	XXX
3.03	XXX
3.04	XXX
3.05	XXX
3.06	XXX
3.07	XXX
3.08	XXX
3.09	XXX
3.1	XXX
3.11	XXX
3.12	XXX
3.13	XXX
3.14	XXX
3.15	XX
3.16	X

Compound	IC50
4.01	XXX
4.03	X
5.01	X
6.01	XXX
6.02	XX
7.01	XX
8.01	X
9.01	XXX
9.02	XXX
9.03	XXX
9.04	XXX
9.05	XXX
9.06	XXX
9.07	XXX
9.08	XXX
9.09	X
9.10	
10.01	XXX
10.02	XX
10.03	XXX
10.04	XXX
10.05	XXX